Appl. No. 10/604,869
Amdt. dated 11/08/2005
Reply to Office action of 07/29/2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of the Claims

1. (currently amended): A method for formation evaluation results from a multi-dimensional

representation of nuclear magnetic resonance data, the method comprising the steps of:

[[O]]obtaining a set of NMR data for a fluid sample;

[[C]]computing from the set of NMR data a multi-dimensional distribution using a

mathematical inversion based on a maximum entropy process independent of

prior knowledge of fluid sample properties;

[[D]]displaying the multi-dimensional distribution as an at least two-axis graph;

[[I]]identifying at least one fluid instance on the graph representing a probable existence

of a detected fluid; and

[[C]]computing a quantitative formation evaluation value for the at least one fluid

instance based on the multi-dimensional distribution associated with the at least

one fluid instance.

2.-5. (canceled)

6. (original): The method of claim 1, wherein the multi-dimensional distribution is displayed

along a fluid diffusion axis and a T2 relaxation axis.

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7. (original): The method of claim 5, wherein the graph includes an overlay with ideal diffusion

and T2 relaxation values.

8.-31. (canceled)